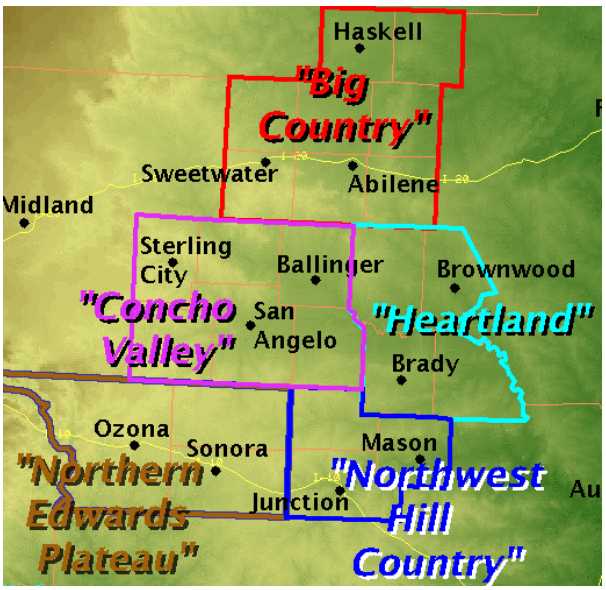
Outlook for October-December 2012

## Recent Weather Trends and Drought Status in West Central Texas




The background map to the left shows the geographic regions of West Central Texas which are referenced in this outlook.

Figure 1 (below) shows the percent of normal precipitation, for the past 60 days ending Sep. 23rd. A few localized areas have received above normal rainfall (green color) during this time period. For much of the Big Country and Concho Valley, however, rainfall has been below normal. Less than 50 percent of normal rainfall has occurred in scattered areas across the Big Country and Concho Valley. A few Concho Valley locations southeast of San Angelo have received less than 25 percent of normal rainfall (red color). The variation of rainfall during the past 60 days has been due to scattered coverage of showers and thunderstorms with isolated heavy rainfall.

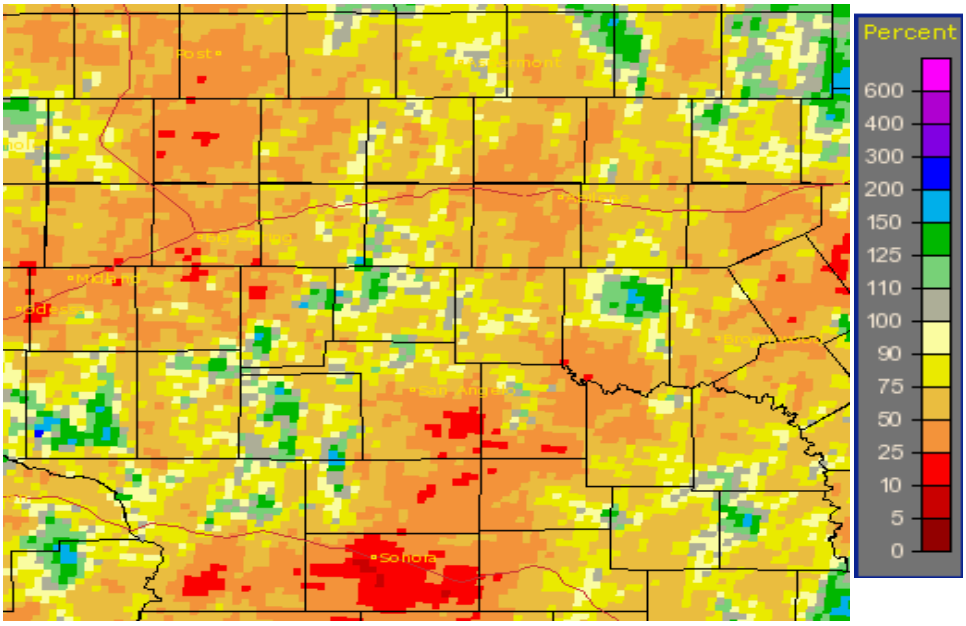



**Figure 1:** Percentage of Normal Precipitation for the past 60 days, ending September 23.

Drought conditions have worsened across West Central Texas in the past couple of months. The U.S. Drought Monitor as of September 20th (Figure 2), issued through the National Drought Mitigation Center, shows exceptional drought (worst possible drought category) impacting Jones and much of Haskell Counties in the Big Country. Severe drought conditions encompass much of the rest of the Big Country, and parts of the northern Concho Valley and Northern Edwards Plateau. Moderate drought conditions were noted across the Heartland. The Drought Monitor takes into account short-term meteorological parameters, agricultural aspects, and the hydrological components (water levels in lakes and rivers) of the drought.

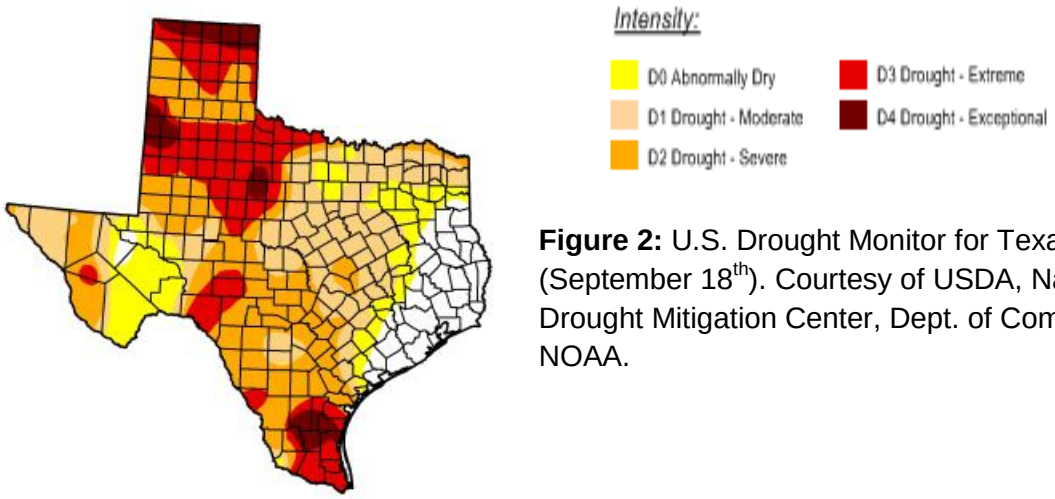



**Figure 2:** U.S. Drought Monitor for Texas (September 18th). Courtesy of USDA, National Drought Mitigation Center, Dept. of Commerce and NOAA.

## Current ENSO Status

In the equatorial east-central Pacific Ocean, water temperatures warmed during summer, but have leveled off over the past few weeks. The current El Nino Southern Oscillation (ENSO) status continues to reflect Neutral conditions with slightly above average sea surface temperatures. The Climate Prediction Center anticipates some additional warming in the equatorial Pacific Ocean, and indicates that El Nino conditions are the most likely to occur this Fall and Winter.

## Climate Outlook for October-December, 2012

The 30-day temperature outlook for October (Figure 3), from the Climate Prediction Center (CPC or www.cpc.ncep.noaa.gov), indicates slightly enhanced probability for temperatures to average above normal across the Big Country, Concho Valley, and Heartland areas.

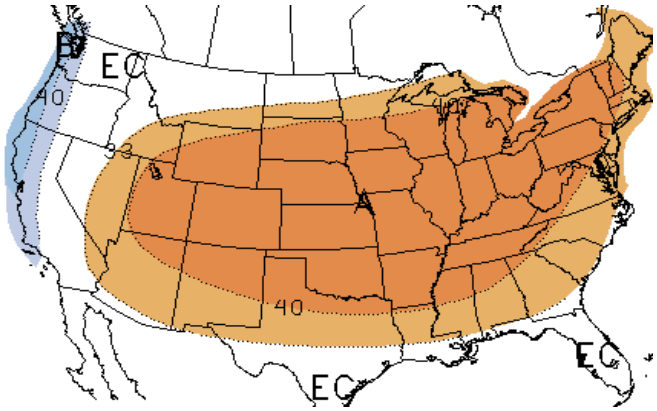
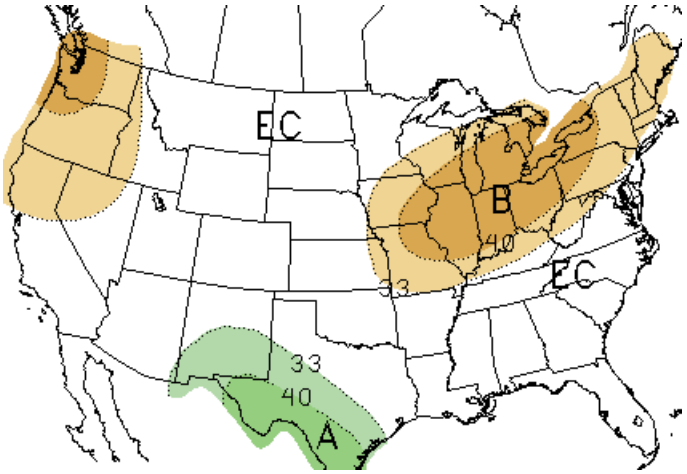



**Figure 3:** Climate Prediction Center 30-Day Temperature Outlook for October (www.cpc.ncep.noaa.gov).




The CPC 30-day precipitation outlook for October (Figure 4) shows slightly enhanced probability for precipitation to be above normal across central and southern parts of West Central Texas. Across the Big Country roughly north and east of Abilene, equal chances are shown for precipitation be above, near, or below normal.

**Figure 4:** Climate Prediction Center 30-Day Precipitation Outlook for October.

The 90-day temperature outlook from CPC indicates equal chances (approximately 33.3%) for temperatures to average above, near, or below normal for West Central Texas (Figure 5).

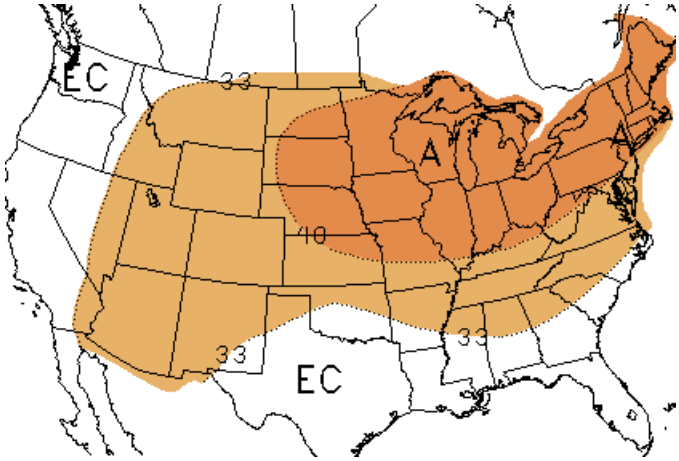
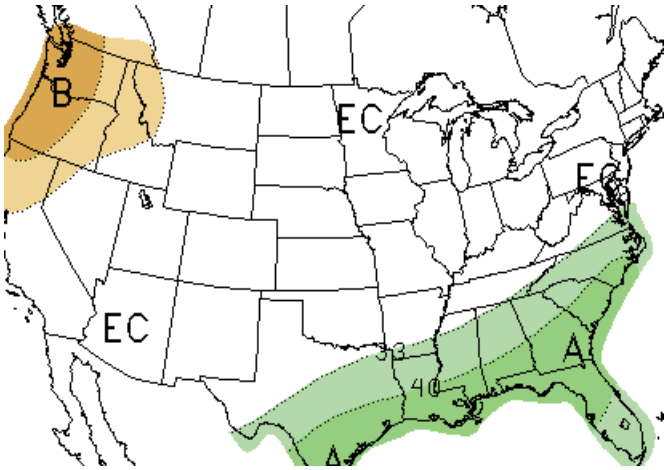



**Figure 5:** Climate Prediction Center 90-Day Temperature Outlook for October-December.




The CPC 90-day precipitation outlook for October through December (Figure 6) shows slightly enhanced probability for precipitation to be above normal across southeastern sections of West Central Texas. For the rest of the area, equal probability (approximately 33.3%) is indicated for precipitation to be above, near, or below normal.

**Figure 6:** Climate Prediction Center 90-Day Precipitation Outlook for October-December.

**Considerations with the Climate Outlooks**

The 30-day temperature outlook for October incorporates trends of temperature across our region related to decadal variability. The trend compares the most recent 10-year average of temperature, to the 30-year climatology period (1981-2010), for given locations.

Wet weather patterns can occasionally occur across West Central Texas during October. The chance for moisture from remnant tropical cyclones to affect the region decreases and becomes increasingly remote through October. When moisture is present, upper level disturbances and frontal boundaries can interact with this moisture and bring heavy rainfall.

The Climate Prediction Center indicates that the consensus of forecast tools point toward the possibility of a weak El Nino event for this winter (December through February). There is uncertainty in how much impact a weak or marginal El Nino would have on global circulation patterns, the jet stream, and the subsequent strength and track of storm systems. A common effect from an El Nino pattern is the southward extension of the sub-tropical jet across the southern U.S., which typically results in a wetter pattern for that part of the country. The CPC 90-day precipitation outlook takes into account the possible influence of a weak El Nino.

**Seasonal Drought Outlook**

The latest U.S. Seasonal Drought Outlook for October through December 2012, issued by the Climate Prediction Center (Figure 7), indicates that drought conditions are likely to persist across the Big Country and Concho Valley. Some improvement is possible across parts of the Heartland, Northwest Hill Country, and Northern Edwards Plateau. Currently, the lakes, reservoirs, and water catchments remain extremely low or nearly dry across all of West Central Texas.

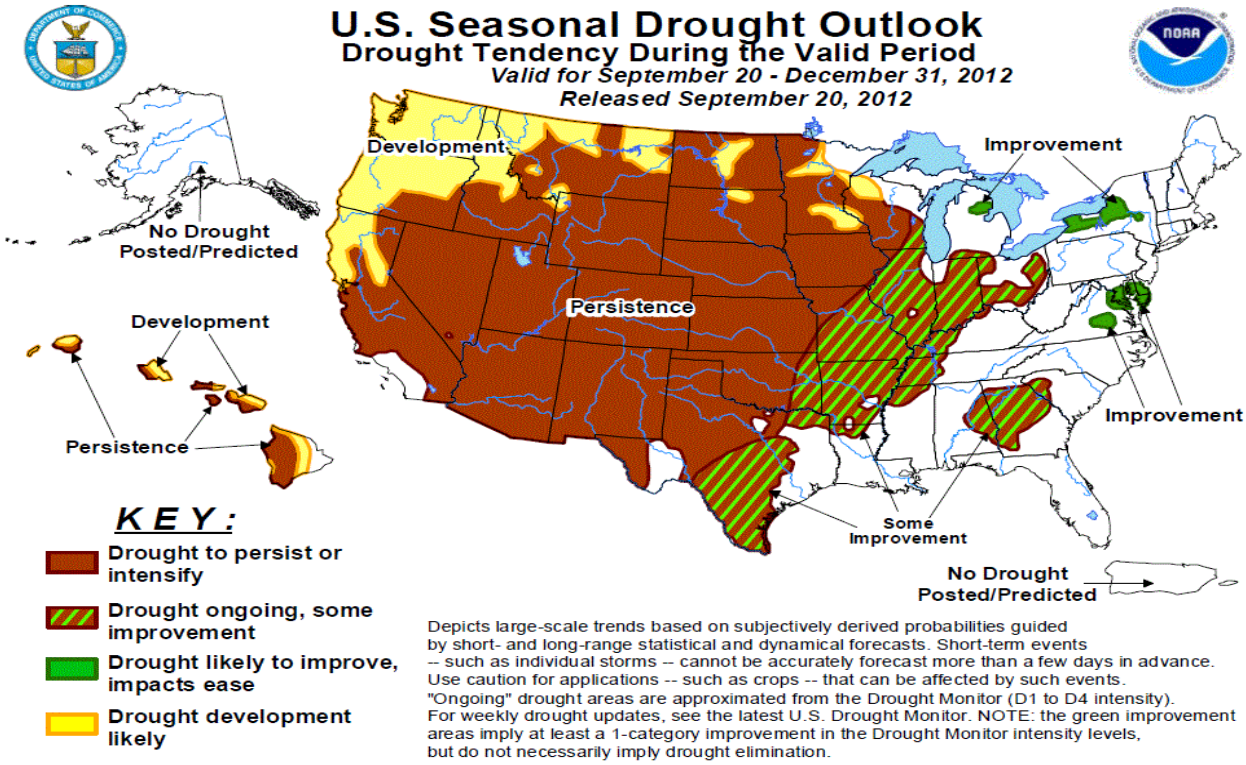



**Figure 7:** U.S. Seasonal Drought Outlook, valid September 20 – December 31, 2012.